

**REMARKS**

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks. Claims 1-20 were pending prior to this Final Office Action. In this Reply, claims 2, 6, 11-12, 14-16, 18 and 20 are cancelled. Therefore, claims 1, 3-5, 7-10, 13, 17 and 19 are pending. Claims 1, 5 and 10 are independent.

**§ 112, FIRST PARAGRAPH REJECTION**

Claims 1-20 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. More specifically, the Examiner alleges that the features of “generating a file signature code by encrypting said document as a whole” and “concatenating the generated file signature code and the electronic signatures generated from each of said structural element” as recited in independent claims 1, 5 and 10 were not described in the specification. Applicants respectfully traverse.

The subject matter contained in claims 1, 5 and 10 are fully supported by the description in various portions of the specification as originally filed. As an example, applicants direct the Examiner’s attention to page 5, lines 8-34 of the specification as originally submitted as well as figures 5-7 as originally submitted. Applicants respectfully request that the rejection of claims 1-20 under § 112, first paragraph.

**§ 103 REJECTION – FISCHER, SERRET-AVILA, SERRET-AVILA, KARJOTH**

Claims 1, 3-5 and 7-20 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Fischer, (European Patent Application No. 0586022 A1) in view of Serret-Avila et al. (USP 6,785,815), refer to as (Serret-Avila), and in further view of Serret-Avila (US Publication No. US2005/0235154) refer to as (Serret-Avila2). Also, claims 2 and 6 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fischer, Serret-Avila, Serret-Avila2 and in further view of Karjoth et al. (US Publication No. 2001/0034839). In this Reply, independent claims 1 and 5 are amended to include the features of claims 2 and 6 respectively and claims 11-12, 14-16, 18 and 20 are cancelled. Therefore, applicants will treat claims 1, 3-5, 7-10, 13, 17 and 19 as being rejected under the combination of Fischer, Serret-Avila, Serret-Avila2 and Karjoth. As such, applicants respectfully traverse.

Independent claim 1 recites, in part “setting a depth code designating a level of the tree structure at which said electronic signatures are to be generated, whereby a level of limitation of a document to be electronically signed can be varied.” In other words, the portion of the documents to be electronically signed, *i.e.* the level of the designated code, can be controlled and varied. One advantage of this feature is that hashed calculation on useless nodes can be eliminated to reduce load. Also, alterations to portions of the document that is not of interest can be disregarded.

Contrary to the Examiner's allegation, Karjoth cannot teach or suggest this feature. Karjoth discloses computing hash components for each of the code blocks B1 to BN. Starting at depth d, hashes for the leaves at level d are calculated. Using these hash values, the hash values at level d-1 are calculated. This occurs until the hash value of the root of the tree is determined. In other words, Karjoth clearly indicates that hash values for the entirely of the code blocks are calculated.

It is noted that Karjoth allows access to limited contents. However, this does not change the fact that hash values are calculated for the entirely of the code blocks. Thus, contrary to the Examiner's allegation, Karjoth cannot teach or suggest the feature of setting a depth code designating a level of the tree structure at which the electronic signatures are to be generated whereby a level of limitation of the document to be electronically signed can be varied as recited in claim 1.

None of Fischer, Serret-Avila and Serret-Avila2 are relied upon to correct for at least this deficiency of Karjoth. For at least this reason, independent claim 1 is distinguishable over the combination of Fischer, Serret-Avila, Serret-Avila2 and Karjoth.

It is also noted that Karjoth actually teaches a way from the above recited feature. Then by definition, there is no motivation to combine Karjoth

with Fischer, Serret-Avila and Serret-Avila2. Thus, any rejection based on a combination of references that includes Karjoth is improper.

Independent claim 5 recites, in part “wherein a depth code designating a level of the tree structure which said electronic signatures are to be generated can be set by said means for generating the electronic signatures, whereby a level of limitation of a document to be electronically signed can be varied.” It is demonstrated above that none of Fischer, Serret-Avila, Serret-Avila2 and Karjoth teach or suggest this feature. For at least this reason, independent claim 5 is distinguishable over the same combination of references.

Independent claim 10 recites, in part “wherein a depth code designating a level of the tree structure which said electronic signatures are to be generated can be set by said means for generating the electronic signatures, whereby a level of limitation of a document to be electronically signed can be varied.” It is clear that claim 10 is distinguishable over the combination of Fischer, Serret-Avila, Serret-Avila2 and Karjoth.

Claims 3-4, 7-9, 13, 17 and 19 depend from independent claims 1 and 5 directly or indirectly. Then for least due to the dependency thereon, these dependent claims are also distinguishable over the same references.

Applicants respectfully request that the rejection of claims based on Fischer, Serret-Avila, Serret-Avila2 and Karjoth be withdrawn.

## CONCLUSION

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact Hyung Sohn (Reg. No. 44,346), to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to the provisions of 37 C.F.R. § 1.17 and 1.136(a), the Applicants hereby petition for an extension of one (1) month to June 19, 2006 (June 17, 2006 falling on a Saturday) in which to file a reply to the Office Action. The required fee of \$ 60.00 is enclosed herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,  
  
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